



ICIS Interactive 2019

7-9 October 2019

**CPI POLYURETHANES TECHNICAL
CONFERENCE, ORLANDO, FLORIDA**

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SUSTAINABILITY**



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INTRODUCTION



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SUSTAINABLY GOOD

As this trend becomes more important to companies, consumers, and regulators, PU stands to benefit

The polyurethanes (PU) industry considers sustainability a trend that could benefit it as a whole, as its materials can improve the energy efficiency of buildings and the fuel economy of automobiles, said Julia Rubino, vice chair of the steering committee of the Center for the Polyurethanes Industry (CPI).

“PUs rank among the most powerful insulators for buildings and appliances. In the course of its lifetime, for many applications, PU can save about 60 times the amount of energy required to manufacture it.” In automobiles, PUs are

replacing heavier materials, allowing vehicles to travel farther with less energy. As sustainability becomes more important, the PUs industry is placed in an ideal position. CPI is trying to make the most of this opportunity by following industry trends and by driving energy-efficiency legislation.

The model Energy Code, which contains energy efficiency criteria for buildings, is under its triannual revision period, and CPI is providing recommendations and proposals to this revision.



A RENEWED ALLIANCE

A renewed alliance would encourage consistent, fair and science-based regulations among the states

CPI plans to renew its alliance with the US Occupational, Safety and Health Administration (OSHA), said Lee Salamone, CPI senior director.

CPI, the Diisocyanates Panel and the Aliphatic Diisocyanates Panel are part of the American Chemistry Council (ACC) and members of the OSHA Alliance.

“We had a great two years completing our first alliance and we are getting ready to sign a five-year renewal,” Salamone said.

The alliance helps CPI extend its

reach to the consumers that use its products. It also allows CPI to team up with OSHA on providing information about safety and about product stewardship.

Another goal of CPI is to encourage consistent, fair and science-based regulations among the states, Salamone said.

On the state level, agencies are regulating various parts of the formulations of polyurethanes.

CPI wants to continue working on these issues on a state-by-state basis.



PU ON THE RIGHT PATH

While PUs already contribute to many sustainability targets, there is still more opportunity out there

As the polyurethanes industry moves forward, it is seeking to find ways to make its products even more sustainable, said Mike McCurrie, Steering Committee chair for CPI.

Polyurethanes already contribute a lot to sustainability. Rigid-foam insulation can help buildings require much less energy. Polyurethanes are making automobiles weigh less and use less fuel.

Many outside of the industry are not aware of this, so companies need to reach out to them.

“Everyone in our industry understands that very well, but are we talking to the building community? Do they know that polyurethane products have this great efficiency, and they should be specing them into their applications?”

“I think more and more they are, but I think we have to tell that story,” he said. “As we continue to drive these advantages in these various applications, we’ll see polyurethanes be more specified in both automotive and building solutions.”



BEDDING ON THE BEST

Dow's revolutionary coating provides superior cooling performance, durability and adhesion

Dow's AQUACHILL coating excels at keeping bedding cool while someone is trying to sleep.

AQUACHILL was one of the finalists for the Polyurethane Innovation Award. The coating can be applied to bedding made of polyurethanes.

AQUACHILL packs a lot of properties into a single product. It's water based, which means it has neutral odour, and low levels of volatile organic compounds (VOCs), said Yasmin Srivastava, senior research scientist for Dow.

AQUACHILL is also phase-change material, and this gives the coating its impressive ability to absorb and release heat. Srivastava said the material is best in class. Bedding coated with AQUACHILL provides cooling intensity that is up to seven times better than one that lacks the coating.

"The technology is really revolutionary in the furniture and bedding space," said Scott Snyder, regional commercial director. It provides superior cooling performance, durability and adhesion.



REACHING FOR THE GOAL

Uses for PU in sports equipment and sustainability will help the industry reach out to the public

CPI is highlighting how the material is used in sports equipment and sustainability to reach out to the public and attract new people into the industry, said Rohit Ghosh, chairman of CPI's outreach committee.

CPI kicked off an outreach campaign five years ago that was built around the theme of "Versatile.Durable.Incredible.Polyurethane."

This year, CPI added an Instagram feed to the campaign.

It also included sports applications with the goal of reaching out to

students who are studying science, technology, engineering and mathematics (STEM).

This summer, CPI coordinated the campaign with the start of the bicycle-riding season.

The campaign highlighted how polyurethanes are used in products ranging from boots to raingear to helmets.

For winter, the campaign explains how polyurethanes are used in skiing, such as the coatings for the skis and components for the helmets



ATTENDANCE HIGH

Hundreds of delegates have the opportunity to network and participate in development sessions

This year's Polyurethanes Technical Conference could have close to 1,000 attendees, said Ernest Wysong, conference chair.

"These attendees come from all over the world for a particular reason.

"This is an exceptional venue for getting information about the polyurethanes industry," he said.

The conference includes technical sessions and several opportunities to meet colleagues and friends.

Some delegates have more than 40 years' worth of experience.

Attendees who are new to the conference this year can also tap into that experience and learn more about industry through the professional development programmes available at the event.

These programmes cover everything from basic information to advanced topics about polyurethanes.

For all delegates, the conference gives them a chance to catch up with the latest innovations in the business as well as developments in safety and regulations.



PRODUCT STEWARDSHIP

CPI's Karlovich seeks consistency in state regulations on HFC and flame retardant phaseouts

For health and safety, CPI has prepared dozens of product stewardship documents that are available on its website, said Brian Karlovich, chair of the product stewardship committee for CPI and senior product safety representative at Covestro.

The documents are reviewed periodically and updated as needed.

CPI's transportation work group has been working on videos about how to safely handle isocyanates.

CPI worked with industry experts and transportation partners in the rail

and truck industries. These videos could be released by the end of the year.

Regarding spray-foam insulation, CPI has developed an online health and safety program.

CPI, OSHA, the Diisocyanates Panel and the Aliphatic Diisocyanates Panel recently completed a two-year alliance to promote safety awareness and to offer training and to develop documents about health and safety.

The groups plan to renew the alliance for another five years.



◀ Innovation Award winner

Carbon won for an American football helmet liner, developed with Riddell, the sports-equipment manufacturer. Nick Carmean, research scientist, talks about what makes the technology innovative.

▶ Attendees register

Attendees at the Gaylord Palms Resort, host of the event, registered and picked up their badges on the first day of the conference in Orlando, Florida.



◀ Networking opportunities

These attendees chat and interact at one of the many different company booths found at this year's Polyurethanes Technical Conference.



◀ **Keynote speech**

Delegates listened intently during the keynote speech given by Deborah Mielewski, the senior technical leader of sustainable materials and advanced materials for Ford Motor.

▶ **Deborah Mielewski**

Mielewski, Ford Motor senior technical leader of sustainable materials and advanced materials, spoke about Ford's campaign to use more sustainable materials.



◀ **Innovation finalist**

Yasmin Srivastava is currently a senior research scientist for Dow, and also one of the finalists for the Polyurethane Innovation Award.





The Gaylord Palms Resort, the host of this year's conference, has alligators and turtles on display in the ponds of its atrium



A server at the Gaylord Palms Resort carves meat at the buffet prepared for delegates attending the welcome reception



Attendees have numerous advantageous opportunities to network with colleagues during the conference's welcome reception



Sustainability, innovation, fair regulations, and safety among the many topics discussed by attendees at this year's conference

Center for the Polyurethanes Industry **EDUCATION CENTER**

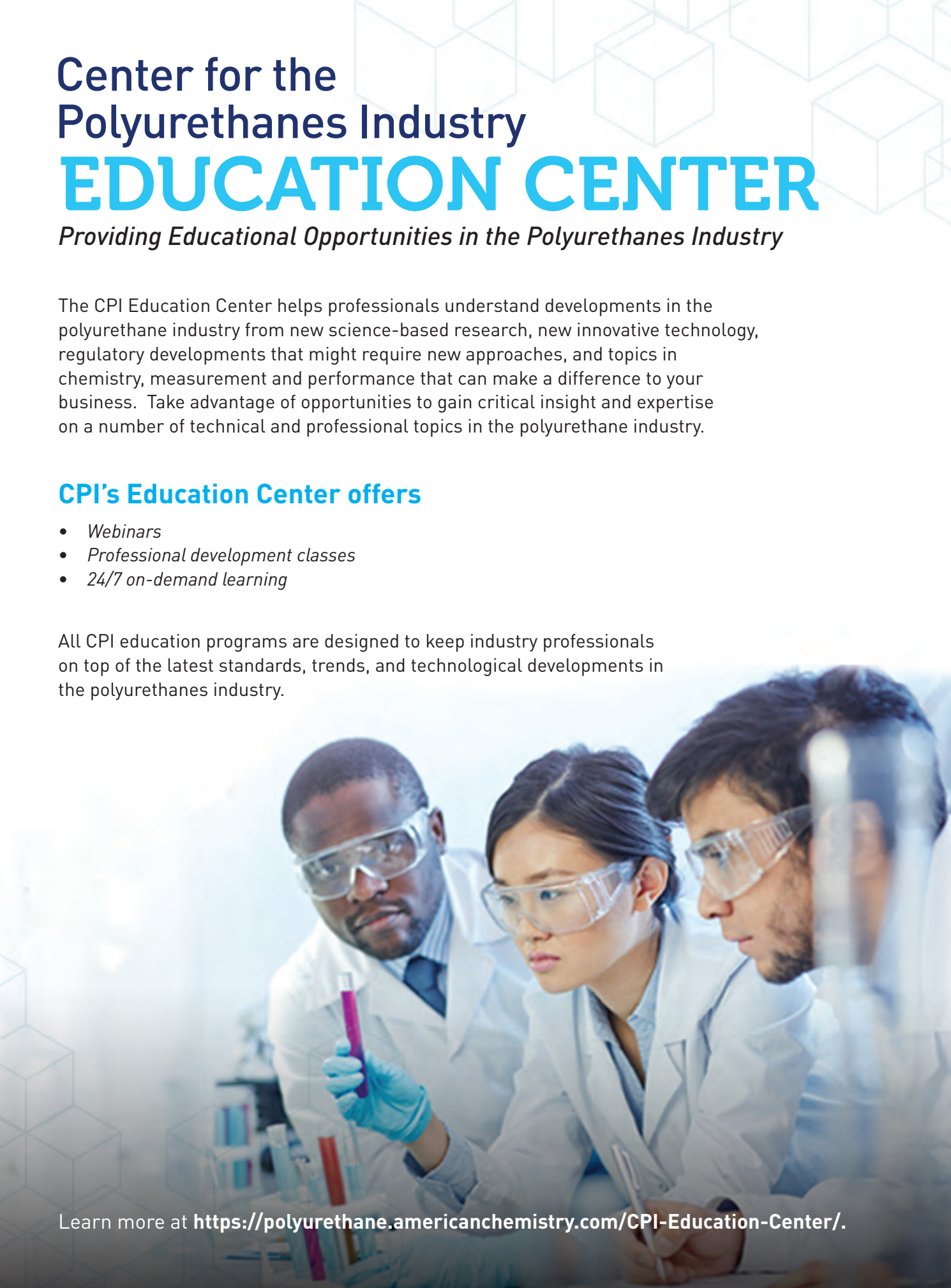
Providing Educational Opportunities in the Polyurethanes Industry

The CPI Education Center helps professionals understand developments in the polyurethane industry from new science-based research, new innovative technology, regulatory developments that might require new approaches, and topics in chemistry, measurement and performance that can make a difference to your business. Take advantage of opportunities to gain critical insight and expertise on a number of technical and professional topics in the polyurethane industry.

CPI's Education Center offers

- *Webinars*
- *Professional development classes*
- *24/7 on-demand learning*

All CPI education programs are designed to keep industry professionals on top of the latest standards, trends, and technological developments in the polyurethanes industry.

A photograph of three scientists in a laboratory setting. They are wearing white lab coats and safety goggles. The scientist on the left is a Black man, the one in the middle is a woman, and the one on the right is a man. They are all looking intently at a test tube held by the woman in the center. The background is slightly blurred, showing laboratory equipment and shelves.

Learn more at <https://polyurethane.americanchemistry.com/CPI-Education-Center/>.